

HARALD SCHROTT,
ANDREAS WAWRLA and
KLAUS ZUCHOLL
U.S. Serial No.: 10/509,880

R E M A R K S

Applicants respectfully request reconsideration of the claims as amended as well as new claim 15 in conjunction with the discussion of the prior art.

1. Preliminary Matters

As indicated in the proposed amendment to claim 1 included with a fax cover sheet dated December 15, 2008 one of the differences between the invention and the prior art is the invention pertains to a replaceable control unit which has a needle-like electrode or conductance sensor for penetrating or passing through a wall of a replaceable filter cartridge. There are numerous other differences as well which will be discussed hereinafter in greater detail.

However before discussing these differences and the amended claims it was hoped that an interview could be scheduled to demonstrate the differences between the invention and the prior art. Unfortunately the work schedules of the Examiner and the undersigned and the holidays prevented an interview which is respectfully requested in the event the claims are not allowable.

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2. Written Record

In order to make certain there is a full and complete written record, it should be noted a first telephone message was left requesting an interview with an offer to provide proposed claims. That message was followed by a message from the Examiner indicating that he was busy on work detail and requesting a proposed claim.

There was only one conversation between the undersigned and the Examiner on December 23, 2008 in which the proposed claim was briefly discussed in relation to whether the search included replaceable control units. In the course of discussing the replaceable control unit and a replaceable filter cartridge the Examiner suggested a claim be presented to a combination of a replaceable control unit and a replaceable filter. As a result new claim 15 has been presented.

3. Support for the Amendments and New Claim 15

The amendments to the claims are fully supported by the application and drawing as filed and do not add new matter. More particularly the amendment of claims 1-4 as well as new claim 15 which describe the puncturing, penetrating or passing through the

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filter cartridge is described in paragraphs 17 and 18 of the application. The needle-shaped electrodes or a conductance sensor for puncturing or passing through a wall of the filter cartridge having break points or an elastic sealing material was previously claimed as well as being described in paragraphs 16 and 18 of the application as filed.

Support for measuring and comparing the quality of the filtered water with the quality of the unfiltered water is discussed in paragraph 20 of the application. The evaluation unit in new claim 15 is described in paragraph 21 and the function of the evaluation unit in determining whether the replaceable control unit has been attached to a new replaceable filter cartridge is described in paragraph 39. The fact the needle shaped electrode or conductance sensor does not come in contact with the filter granulate or medium is shown in Fig. 1 (as filed) which shows a sieve 8 prevents contact between the filter granulate and/or filter medium.

This absence of contact between the electrode or conductance sensor with the filter medium allows precise measurement and comparison of the conductivity of filtered water and unfiltered water as discussed in paragraph 40 of the application as filed. The penetrating needle shaped electrodes or conductance sensor

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for puncturing the wall of the filter and the absence of contact as well as absence of an electrically conductive filter also demonstrates the invention is patentably distinguishable from Oikawa, et al. U.S. Patent 5,281,330 and the other prior art as will be discussed hereinafter in greater detail with respect to the rejection of the claims under 35 U.S.C. § 103.

4. The Claim Rejections Under 35 U.S.C. § 103

(a) Oikawa, et al. U.S. Patent 5,281,330

Claims 1-7 and 10-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of Applicant's admitted prior art in view of Oikawa, et al. U.S. Patent 5,281,330.

At the outset it should be noted that Applicant's admission of prior art pertains only to a replaceable control unit without penetrating electrodes. Such a replaceable control unit is shown in Parise U.S. Patent 6,024,867 as described in paragraph 0006 of the application as filed.

The admitted replaceable control units of the prior art do not have needle shaped electrodes or conductance sensors that penetrate through the filter cartridge. See Parise '867.

In addition the invention as disclosed and claimed is not obvious from Oikawa, et al. '330. Oikawa, et al. pertains to an

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electrically conductive filter in which "[a] first electrode is electrically connected to the filter, and a second electrode, disposed in the filter, is electrically connected to the filter via water flowing through the filter." (Emphasis added.) See Abstract.

The invention is totally different in operation and function from Oikawa, et al. '330 since the invention compares the quality of filtered water to unfiltered water to determine when the filter cartridge is exhausted and does not rely upon an electrically conductive filter. Compare paragraph 40 of the present application with Oikawa, et al. '330. Contacting the water filter with an electrode or a conductance sensor or having a conductive filter in accordance with Oikawa, et al. '330 would be inconsistent with the invention as disclosed and claimed. The electrodes of the invention do not contact the filter or use a conductive filter but instead compare the conductance of filtered water with unfiltered water.

The invention as claimed and disclosed is not obvious from Oikawa, et al. '330.

(b) Joung, et al. U.S. Patent 5,820,765

Claims 1-2, 5-7, 9-10 and 13 were rejected under 35 U.S.C. §

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103(a) as being unpatentable over Applicant's alleged admitted prior art in view of Joung, et al. U.S. Patent 5,820,765.

As far as Applicant's alleged admission of prior art is concerned reference is directed to the previous discussion regarding Oikawa, et al. '330 Patent and the "alleged admission."

Joung, et al. '765 does not teach or suggest the invention as Joung, et al. '765 does not have a replaceable control unit with a penetrating conductance sensor or an electrode that penetrates a filter cartridge without contacting a filter granulate or filter medium to compare the measurement between filtered water and unfiltered water to determine the status of the filter.

Joung, et al. '765 is further different from the invention in having a water storage tank 35 in which water processed by three different filters is stored, " which water storage tank comprises supply water sensing element for sensing an amount of pollutant substances contained in supplied fresh water" (col. 3, 1. 7-10) (Emphasis added).

The invention of Joung, et al. '765 is different since the sensor not only does not penetrate the filter but it also does not sense the quality of the water as it leaves each of the filters 27, 29 and 31 but instead measures the quality of stored

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water after it has been processed by all three filters and mixed with water already in the storage tank 35. Moreover it should be recognized that puncturing or passing through the wall of a filter is contrary to the teaching of Joung, et al. '765 of pressure feeding a reverse osmosis filter due to the problem of pressure and water leakage around the interface between the punctured filter and needle shaped electrodes or conductance sensor.

The invention as claimed is not disclosed or obvious from Joung, et al. '765.

(c) King U.S. Patent 4,587,518

Claim 8 was rejected as being unpatentable under 35 U.S.C. § 103(a) as being obvious for reasons previously discussed with respect to Oikawa, et al. '330 or Joung, et al. '765 and further in view of King U.S. Patent 4,587,518 since King '518 includes a temperature sensor.

For reasons previously discussed with respect to Oikawa, et al. '330 and Joung, et al. '765 and as a result of the amendment of the base claim, it is respectfully submitted that adding a temperature sensor to take temperature into account when determining the condition of the filter cartridge as opposed to


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the impurity concentrations of input and purified water is not obvious.

As a result it is believed the amended claims are patentable over the prior art which action is respectfully requested.

Respectfully submitted,

BRENEMAN & GEORGES

By: 
William D. Breneman
Reg. No. 26,714

3150 Commonwealth Avenue
Alexandria, VA 22305
Tel.: (703) 683-8006
Fax: (703) 683-8009